

## CLAIMS

What is claimed is:

- 500A'7
- 1 1. A method comprising:
    - 2 receiving real-time data at a personal computer implementing a general
    - 3 purpose operating system;
    - 4 generating a real-time event at the personal computer;
    - 5 determining whether the real-time event has a higher priority than a first
    - 6 event being processed at the personal computer; and
    - 7 if so, processing the real-time event.
  - 1 2. The method of claim 1 further comprising continuing to process the first  
2 event if the real-time event does not have a higher priority than the first event.
  - 1 3. The method of claim 1 further comprising:
    - 2 saving the state of the first event at the personal computer prior to
    - 3 processing the real-time event; and
    - 4 processing the prior event after processing of the real-time event has been
    - 5 completed.
  - 1 4. The method of claim 1 further comprising:
    - 2 receiving a second event while processing the real-time event; and
    - 3 determining whether the second event has a higher priority than the real-

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6. The method of claim 4 further comprising:

terminating the processing of the real-time event if the second event has a higher priority; and

processing the second event.

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11. The computer system of claim 9 wherein the event mechanism determines

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12. The computer system of claim 11 wherein the CPU further comprises an analog to digital converter coupled to the register.

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5 a timer to generate timing signals at predetermined time intervals; and  
an event mechanism coupled to the timer to generate real time events,  
wherein the CPU operates according to a general purpose operating system  
adaptable to execute real-time instructions.

14. The computer system of claim 13 wherein the CPU further comprises an  
10 event handler coupled to the event mechanism to process real-time events.

15. The computer system of claim 14 wherein the CPU further comprises a register coupled to the event mechanism to store real-time data.

1 16. The computer system of claim 15 wherein the CPU further comprises an  
2 analog to digital converter coupled to the register.

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